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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,946	03/26/2002	Thomas Riermeier	217638US0PCT	3953
22850	7590	10/06/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			SAEED, KAMAL A	
			ART UNIT	PAPER NUMBER
			1626	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,946	RIERMEIER ET AL.	
	Examiner	Art Unit	
	Kamal A Saeed	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-21 are currently pending in this application. Claims 1-21(in part), are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention. The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search considerations. In addition, a reference, which anticipates one group, would not render obvious the other.

Priority

This Application is a 371 of International Application No. PCT/EP00/06056, filed on June 29, 2000, which claims the benefit of foreign priority under 35 U.S.C. 119, German Application No. 19933611.3, filed July 17, 1999.

Information Disclosure Statement

Applicant's Information Disclosure Statements, filed on January 15, 2002 have been considered. Please refer to Applicant's a copy of the 1449 submitted herewith.

Response to Restriction

Applicants' election with traverse of Group I, claims 1-22 (in part), drawn to a process of

preparing amines of the formula III,
$$\begin{array}{c} \text{R}^3 \text{---} \text{N} \text{---} \text{R}^4 \\ | \\ \text{R}^1 \text{---} \text{C} \text{---} \text{R}^2 \end{array}$$
, wherein: **R¹-R⁴** are independently selected from the group consisting of is H, C₁-C₂₄ alkyl, C₂-C₂₄ alkynyl, C₂-C₂₄ alkynyl, C₆-C₁₀ aryl, CF₃; and **R⁶-R⁹**, in the mono-dentate or bi-dentate ligand, are independently selected from the group consisting of is H, C₁-C₂₄ alkyl, C₂-C₂₀ alkenyl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, C₆-C₁₄ aryl, phenyl, naphthyl, in response filed July 07, 2003 is acknowledged.

The traversal is on the ground(s) that the examiner has not provided adequate reasons and or examples to support a conclusion of patentable distinctness between the identified groups. This is not found persuasive because under PCT Rule 13.1:

The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept.

Applicant's instant claims do not relate to a single invention, the application is drawn to multiple product inventions. The multiple inventions are not so linked as to form a single general inventive concept because according to PCT Rule 13.2:

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Applicant's instant claims do not contain a special technical feature that defines a contribution over the prior art (see U.S. Pat. No. 2,879,293). Therefore, since the substituents on the technical feature vary extensively (for example R^3 and R^4 can each represent hydrogen or together with the nitrogen to which they are attached can form a four- to eight-membered ring etc.) and when taken as a whole result in vastly different compounds and unity of inventions is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper and according to PCT Rule 3.3.

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

Therefore, since the claims do not contain a special technical feature, which defines a contribution over the prior art, the examiner may determine within a single claim that the inventions are not so linked as to form a single general inventive concept.

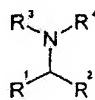
Therefore, the restriction requirement is still deemed proper.

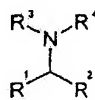
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Status of the Claims

Claims 1-21 are pending in this application. Claims 1-21 (in part), as previously stated, are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention. The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search considerations. In addition, a reference, which anticipates one group, would not render obvious the other.

The scope of the invention of the elected subject matter is as follows:



Process of preparing compounds of formula II, , depicted in claim 1, wherein:

R¹-R⁴ are independently selected from the group consisting of is H, C₁-C₂₄ alkyl, C₂-C₂₄ alkynyl, C₂-C₂₄ alkynyl, C₆-C₁₀ aryl (excluding heterocyclic groups), CF₃, CN, COOH, COOM, CONH₂, COO-alkyl; CON-alkyl; and **R⁶-R⁹**, in the mono-dentate or bi-dentate ligand, are independently

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selected from the group consisting of is H, C₁-C₂₄ alkyl, C₂-C₂₀ alkenyl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, C₆-C₁₄ aryl, phenyl, naphthyl; R¹⁰, Z, X¹ and X² of the mono-dentate or bidentate ligands are as defined.

As a result of the election and the corresponding scope of the invention identified supra, the remaining subject matter of claims 1-21 are withdrawn from further consideration pursuant to 37 CFR 1.142 (b) as being drawn to non-elected inventions. The withdrawn compounds contain varying functional groups such as triazine, homopiperazinyl, thiomorpholinyl, propylaminyl etc, which are chemically recognized to differ in structure and function. This recognized chemical diversity of the functional groups can be seen by the various classification of these functional groups in the U.S. classification system, i.e. class 544 subclass 63(+) (thiomorpholine), class 540 subclass 450(+) (homopiperziny), class 544 subclass 180(+) (triazines), 548 subclass 400(+) pyrrolidines etc. Therefore the subject matter which are withdrawn from consideration as being non-elected subject differ materially in structure and composition and have been restricted properly a reference which anticipated but the elected subject matter would not even render obvious the withdrawn subject matter and the fields of search are not co-extensive.

Objections

Claims 1-21, are objected to for containing elected and non-elected subject matter. Claims drawn solely to the elected invention as identified supra, would appear allowable.

The invention relates to a process of preparing amines by homogenously catalyzed reductive amination using specific catalysts, which contain at least one metal selected from the group consisting of Rh, Ru, Ir, Pd, Pt, Co and Ni and one or more monodentate or bidentate ligands. The closest prior art of record is to Marco et al, *Journal of Organometallic Chemistry*,

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vol. 81, pages 411-414. Marco et al teach reductive amination in the presence of a homogenous catalyst system, wherein the catalyst are carbonyl-phosphine complexes that require high reaction temperatures (150-200⁰ C) and pressure (100-300 atm). The process described in this application differ from the prior art in the reaction is carried out under mild conditions.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamal Saced whose telephone number is (703) 308-4592. The examiner can normally be reached on Monday-Friday from 8:00 AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph K. McKane, can be reached at (703) 308 4537. The unofficial fax phone for this group are (703) 308-4556 or 305-3592.

When filing a FAX in Technology Center 1600, please indicate the Header (upper right) "Official" for papers that are to be entered into the file, and " Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Communication via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by applicant and should be addressed to [joseph.mckane@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy

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89.

Any inquiry of a general nature or relating to the status of this application should be
directed to the Group receptionist, whose telephone number is (703) 308-2286.

Kamal Saeed
Kamal Saeed, Ph.D
Patent Examiner AI 1626
09/30/2003